

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A process for transmitting data between at least one transmitter and at least one receiver, in the form of data packets of at least one datum, each of said data packets being associated with an identifier of said data packet,

wherein the process implements at least two transmission modes:

- an explicit mode, wherein each of said data packets, called explicit packets, is transmitted with said identifier of said data packet;
- an implicit mode , wherein said data packets, called implicit packets, are transmitted without being accompanied by said identifiers;

and the process includes at least one first transfer stage from said explicit mode to said implicit mode and/or at least one second transfer stage from said implicit mode to said explicit mode, selection of one of the first and second transfer stages determined as a function of at least one pre-determined transfer criterion associated with the data packet,

wherein said receiver maintains an error flag relating to said data transmission, and

said error flag includes at least two states:

- a raised state after said receiver receives an error message; and
- a lowered state after said receiver correctly receives an explicit packet.

Claims 2-3 (Cancelled)

Claim 4 (Currently Amended): A process according to claim 3 1, wherein when said receiver is in the explicit mode and said error flag is raised, said receiver rejects all implicit packets received.

Claim 5 (Currently Amended): A process according to claim 3 1, wherein when said receiver is in the explicit mode and receives at least one implicit packet and said error flag is raised, said receiver implements the following successive stages:

- said receiver stores, according to a sequential order of storage, said at least one received implicit packet;
- upon said error flag remaining in the raised state, said receiver rejects said at least one implicit packet; and
- upon said error flag passing to the lowered state, said receiver processes said at least one implicit packet and assigns to the at least one implicit packet an identifier which sequentially precedes said identifier of said received explicit packet, upon the at least one implicit packet is the first stored implicit packet, or upon the identifier which sequentially precedes the identifier of the received explicit packet being an identifier for a previously stored implicit packet according to said sequential order of storage.

Claim 6 (Currently Amended): A process according to any one of claims 3 4 to 5, wherein the transfer of said receiver from said explicit mode to said implicit mode is triggered by receipt of an implicit packet, provided that said error flag is in the lowered state, and said transfer from said implicit mode to said explicit mode is triggered by the receipt of an explicit packet and/or an error message.

Claim 7 (Currently Amended): A process according to any one of claims 1, ~~to~~ 4, or 5, wherein said receiver having correctly received a data packet, said receiver sends to said transmitter at least one conventional acknowledgement message of said received packet, containing said identifier of said next data packet expected by said receiver,

and in at least some cases, said receiver, prior to said dispatch of said at least one conventional acknowledgement message, sends to said transmitter at least one advance acknowledgement message.

Claim 8 (Currently Amended): A process according to any one of claims 1, ~~to~~ 4, or 5, wherein said transmitter maintains at least one of the following including:

- variables relating to identifiers of at least some of said transmitted packets;
- for each of said transmitted packets, a clock being able to take at least three states:
 - an in-progress state, after sending of said transmitted packet;
 - a stopped state, after receipt of an acknowledgement message of said transmitted packet;
 - an expired state, after a pre-determined maximum time; and
- state variables relating to an implemented protocol.

Claim 9 (Currently Amended): A process according to any one of claims 1, ~~to~~ 4, or 5, wherein the transfer of said transmitter from said explicit mode to said implicit mode is triggered by an event internal and/or external to said transmitter, if at least one explicit packet has been sent by said transmitter since the last transfer of said transmitter from said implicit mode to said explicit mode.

Claim 10 (Currently Amended): A process according to any one of claims 1, ~~to~~ 4, or 5, wherein said transmitter maintains additionally at least one of the variables belonging to the group including:

- a first identification variable EoW, whose value is an identifier of said next packet to be transmitted; and

- a second identification variable BoW, whose value is the smallest of said identifiers of said transmitted packets, for which said transmitter has not received an acknowledgement message, said identifier being a number, assigned sequentially to each of said data packets.

Claim 11 (Previously Presented): A process according to claim 8, wherein said identifier is a number, assigned sequentially to each of said data packets,

and said event is constituted by a combination of the following conditions:

- said transmitter receives an acknowledgement message containing an identifier N of the next data packet expected by said receiver; and

- said clock of each of said packets with identifiers SN transmitted by said transmitter is either in said in-progress state, or in said stopped state, SN being greater than or equal to N, and SN being strictly lower than an identifier of said next packet to be transmitted (EoW).

Claim 12 (Previously Presented): A process according to claim 8, wherein said identifier is a number, assigned sequentially to each of said data packets,

and the transfer of said transmitter from said implicit mode to said explicit mode is triggered by receipt of an acknowledgement message containing the identifier N of said next data packet expected by said receiver, if the two following conditions are confirmed:

- said transmitter has transmitted at least one packet with identifier SN, with SN greater than or equal to N, and SN being strictly lower than the identifier of said next packet to be transmitted; and

- said clock of one at least of said packets with identifier SN is in the expired state.

Claim 13 (Previously Presented): A process according to claim 8, wherein said identifier is a number, assigned sequentially to each of said data packets,

and the transfer of said transmitter from said implicit mode to said explicit mode is triggered by the transfer of said clock of a packet with identifier SN into said expired state, SN being greater than or equal to said second identification variable BoW, and strictly lower than said first identification variable EoW.

Claim 14 (Currently Amended): A process according to any one of claims 1, ~~to~~ 4, or 5, wherein said explicit mode implements a protocol of the Automatic Repeat Request (ARQ) type.

Claim 15 (Previously Presented): A process according to claim 14, wherein said ARQ type protocol belongs to the group including:

- protocols of the Go-back-N type;
- protocols of the Selective Repeat type; and
- protocols of the Stop-and-Wait type.

Claim 16 (Currently Amended): A system for transmitting data exchanged between at least one transmitter and at least one receiver, in the form of packets of at least one datum, each of said data packets being associated with an identifier of said packet,

wherein the system is configured to include at least two transmission modes:

- an explicit mode, wherein each of said data packets, called explicit packets, is transmitted with said identifier of said data packet;
- an implicit mode, wherein said data packets, called implicit packets, are transmitted without being accompanied by said identifiers;

and the system implements a first transfer means mechanism from said explicit mode to said implicit mode and/or a second transfer means mechanism from said implicit mode to said explicit mode, selection of one of the first and second transfer means mechanisms determined as a function of at least one pre-determined transfer criterion associated with the data packet,

wherein said at least one receiver is configured to maintain an error flag relating to said data exchanged, and

said error flag includes at least two states:

- a raised state after said receiver receives an error message; and
- a lowered state after said receiver correctly receives an explicit packet.

Claim 17 (Currently Amended): A transmitter of a data transmission system for exchanging data with at least one receiver, in the form of packets of at least one datum, each of said data packets being associated with an identifier of said packet,

wherein the transmitter is configured to operate according to at least two data transmission modes:

- an explicit mode, wherein each of said data packets, called explicit packets, is transmitted with said identifier of said data packet;
- an implicit mode, wherein said data packets, called implicit packets, are transmitted without being accompanied by said identifiers;

and in that it includes a first transfer means mechanism from said explicit mode to said implicit mode and/or a second transfer means mechanism from said implicit mode to said explicit mode, selection of one of the first and second transfer means mechanisms determined as a function of at least one pre-determined transfer criterion associated with the data packet,

wherein said at least one receiver is configured to maintain an error flag relating to exchanged data, and

said error flag includes at least two states:

- a raised state after said receiver receives an error message; and
- a lowered state after said receiver correctly receives an explicit packet.

Claim 18 (Currently Amended): A receiver of a data transmission system for exchanging data with at least one transmitter, in the form of packets of at least one datum, each of said data packets being associated with an identifier of said packet,

wherein the receiver is configured to operate according to at least two data reception modes:

- an explicit mode, wherein each of said data packets, called explicit packets, is transmitted with said identifier of said data packet;
- an implicit mode, wherein said data packets, called implicit packets, are transmitted without being accompanied by said identifiers;

and the receiver is configured to include a first transfer means mechanism from said explicit mode to said implicit mode and/or a second transfer means mechanism from said implicit mode to said explicit mode, selection of one of the first and second transfer means mechanisms determined as a function of at least one pre-determined transfer criterion associated with the data packet,

wherein said receiver is configured to maintain an error flag relating to said data transmission, and

said error flag includes at least two states:

- a raised state after said receiver receives an error message; and
- a lowered state after said receiver correctly receives an explicit packet.

19 (New): A process according to claim 1, wherein said receiver maintains at least one of the following including:

- variables relating to said identifiers of said data packets, and
- state variables relating to an implemented protocol.

20 (New): A system according to claim 16, wherein said at least one receiver is configured to maintain at least one of the following including:

- variables relating to said identifiers of said data packets, and
- state variables relating to an implemented protocol.

21 (New): A transmitter according to claim 17, wherein said at least one receiver is configured to maintain at least one of the following including:

- variables relating to said identifiers of said data packets, and
- state variables relating to an implemented protocol.

22 (New): A receiver according to claim 18, wherein said receiver is configured to maintain at least one of the following including:

- variables relating to said identifiers of said data packets, and
- state variables relating to an implemented protocol.